

REMARKS

Favorable reconsideration of this application in view of the remarks to follow and allowance of the claims of the present application are respectfully requested.

Claims 1-11 are pending in the present application. Among these claims, Claims 1, 7, 8 and 10 stand rejected under 35 U.S.C. § 102(e).

Applicants thankfully acknowledge the Examiner's statement that Claims 2-6, 9 and 11 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. However, applicants submit not to adopt the Examiner's suggestion at the present time for the reasons discussed below.

Claims 1, 7, 8 and 10 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by the disclosure of U.S. Patent Application Publication 2002/0195565 to Lecoq (hereinafter "Lecoq"). More specifically, the Examiner contends that Lecoq teaches a photodetector device that may include a layer of LuYAlO₃. Further, the Examiner avers that said photodetector inherently includes electrodes. Thus, the Examiner alleges that Lecoq anticipates Claims 1, 7, 8 and 10 of the present application.

Applicants respectfully submit that the claims of the present application are not anticipated by Lecoq since the cited reference does not teach applicants' claimed article of manufacture comprising a substrate and a layer of N_(x)Y_(1-x)AlO₃ on the substrate where x is a molar fraction greater than zero and less than one, and N is an element selected from the group consisting of La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, and Lu.

Lecoq discloses a positron emission camera comprising a plurality of scintillators, wherein the scintillators comprise LuAP (LuAlO₃:Ce) based crystals. According to paragraph [0018] of Lecoq, the LuAP may include Yttrium to form LuYAP. In the Office Action of

December 14, 2004, the Examiner seems to suggest that LuYAP of Lecoq is LuYAlO_3 and thus is within the scope of $\text{N}_{(x)}\text{Y}_{(1-x)}\text{AlO}_3$ in Claim 1.

It is well known in the art that LuAP, which stands for Lutetium Aluminium Perovskite, is a scintillator crystal having a formula of $\text{LuAlO}_3:\text{Ce}$. Lecoq also teaches that LuAP disclosed therein is $\text{LuAlO}_3:\text{Ce}$ at the last line of paragraph [0017] and the last line of paragraph [0022]. That is, LuAP is a photonic material of Ce^{3+} doped LuAlO_3 . Accordingly, LuYAP of Lecoq is a photonic material of Ce^{3+} doped LuYAlO_3 .

Applicants respectfully submit that LuYAP, i.e., the photonic material of Ce^{3+} doped LuAlO_3 , is a markedly different material from LuYAlO_3 of the present invention.

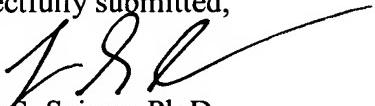
The present invention teaches that preferred embodiments, i.e., $\text{La}_x\text{Y}_{(1-x)}\text{AlO}_3$, are alloys of YaAlO_3 and LaAlO_3 . Thus, $\text{N}_{(x)}\text{Y}_{(1-x)}\text{AlO}_3$ of the present invention are alloys of YaAlO_3 and NaAlO_3 , and LuYAlO_3 of the present invention is an alloy of YaAlO_3 and LuAlO_3 . In contrast, LuYAP of Lecoq is a photonic material of Ce^{3+} doped LuAlO_3 . Further, the inventive materials are dielectric materials with characteristic dielectric and physical properties, while LuYAP of Lecoq is a photonic material with markedly different properties with respect to density, energy resolution, light yield, decay time, and etc.

In view of the above, LuYAP of Lecoq and LuYAlO_3 of the present invention are different materials with distinct compositions and properties. Applicants therefore respectfully submit that LuYAP of Lecoq does not anticipate Claims 1, 7 and 8 of the present invention. Inasmuch as the article comprising LuYAlO_3 is novel over the disclosure of Lecoq, Claim 10, which is directed to a method of manufacturing the inventive article is also novel over the disclosure of Lecoq.

The rejection under 35 U.S.C. § 102 has been obviated; therefore reconsideration and withdrawal thereof is respectfully requested.

Thus, in view of the foregoing remarks, it is firmly believed that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,


Leslie S. Szivos, Ph.D.
Registration No. 39,394

Scully, Scott, Murphy & Presser
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343

Customer Number: 23389

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